




**专注高端齿条生产
工业齿条，精钢制造**

Focus on high-end rack production
industrial rack, refined steel
manufacturing

浙江鹏银科技发展有限公司

Zhejiang Pengyin Technology & Development Co., LTD

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* 此样本中的所有产品型号及参数如不变更如不另行通知，订货前请与本公司联络确认。

Rack Specify product serial number

齿条产品序号说明

		C	S	H	G	2	10	O
材 料 Material	C=c45#(德标) M-42crmo							
齿 型 Tooth type	S(straight)=直齿 H(helical)=斜齿							
热 处 理 Heat treatment	H= 高频淬火 Q 调质							
齿 面 Tooth surface	G= 研磨 F= 精铣							
模 数 Modulus	020= 两模							
长 度 Length	10=1000MM							
表 面 Surface	0= 无 N= 镀镍 B= 磷化黑 P= 精磨							

Gear Specify product serial number

齿轮产品序号说明

		C	S	K	H	2	30	T
材 料 Material	C=C45(S45) ; D=42Cr(SCM420) E=20CrMnTi ; F=40Cr ; G= 材料定制							
齿 型 Tooth type	L= 左旋 R= 右旋 S= 直齿							
热 处 理 Heat treatment	K= 渗碳 P= 高频 Q= 调质							
齿 面 Tooth surface	H= 研磨							
模 数 Modulus	02=2 模							
齿 数 Number of teeth	30=30 齿							
特殊定制 Special custom	T							

**PIONEERING INNOVATION AND
PURSUIT OF EXCELLENCE**

开拓创新 · 追求卓越

PYG Racks and pinions features :

- Complete types : With straight and bevel gear, suitable for various conditions,Rods are square and round, easy to integrate;
- Complete specification : Rack can be connected, a single processing length can reach 2meters;
- Various materials : Carbon steel, alloy steel and stainless steel;
- Process diversification : Heat treatment/no heat treatment/surface grinding/no surface grinding,the same modulus can have a variety of strengths;
- Grinding level accuracy can reach 0.022mm/300mm(any 300mm);
- Production in full accordance with customer requirements.

Application :

Suitable for fast and accurate positioning equipment:

- Suitable for high loading、high precision、high rigidity、high speed、long distance of CNC machine、drilling、turning machine、cutting machine、Wood-working machinery, welding machinery, stone machinery, etc.
- Suitable for fast load shifting mechanism, robot arm grasping mechanism, intelligent three-dimensional warehouse and so on.
- Suitable for fast and precise positioning mechanism - grinding level accuracy can reach 0.022mm/300mm(any 300mm).

**制程说明 / Manufacturing Description:**

- 精度等级: (JIS 四级) DIN 8e25
- Precision Grade: (JIS Grade 4) DIN 8e25
- 压力角: 20 度
- Pressure Angle:20 degree

- 材料: (S45C 中碳钢) C45
- Material: (S45C Medium Carbon Steel) C45
- 不同尺寸与材质可依照图面客制化。
- Other Dimensions/Materials could be customized by drawings

- 齿型: 斜齿
- Type:Helical Rack

- 硬度处理: 无
- Hardness: No Heat treatment

- 左旋角: 19 ° 31' 42"
- Left Hand Angle: 19 ° 31' 42"

- 材质可用 42CrM04, 硬度为 56~60 度
- Material can be used 42CrM04 , hardness is 56 to 60 degrees.

制程说明 / Manufacturing Description:

- 精度等级: (JIS 五级) DIN 9e27
- Precision Grade: (JIS Grade 5) DIN 9e27

- 材料: (SCM440 铬钼合金钢) 42CrM04=
- Material:(SCM440 Chromium Molybdenum Alloy Steel)42CrM04
- 不同尺寸与材质以可依照图面客制化。
- Other Dimensions/Materials could be customized by drawings.

- 齿型: 直齿圆棒
- Type: Straight Round Rack

- 齿面处理: 精铣
- Treatment of Teeth:Milled
- 硬度处理: 热处理
- Hardness:Heat treatment

- 四面磨削: 有
- Sides Ground:Included

- 压力角: 20 度
- Pressure Angle:20 degree

- 总齿距误差: 每 300mm 齿距累积误差的最大值。
- Pitch Error:total pitch error per 300mm

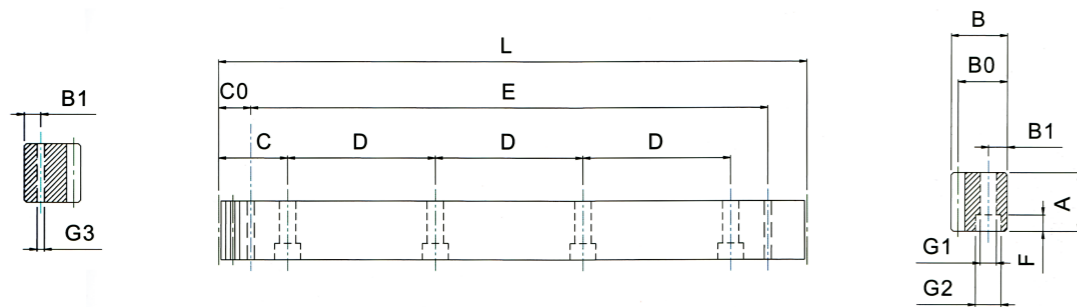
- 右旋角: 19 ° 31' 42"
- Right Hand Angle: 19 ° 31' 42"

- 亦供应无钻孔的齿条, 请于型号后加注 " N " , 如 CSTGH2050N.
- Racks without holes are also available. Note " N " in the end of code number.i.e CSTGH2050N.(S45C Medium Carbon Steel)C45

Straight Teeth System 直齿系统

CSHG Series

- 精度等级 Precision grade: JIS 2 级, DIN6h25
- 齿面硬度 Tooth hardness: 48-52HRC
- 齿型 Tooth type: 直齿 /Straight teeth
- 齿面处理 Tooth processing: 研磨 /Grinding
- 材质 Material: S45C
- 热处理 Heat treatment: 高频 /High frequency

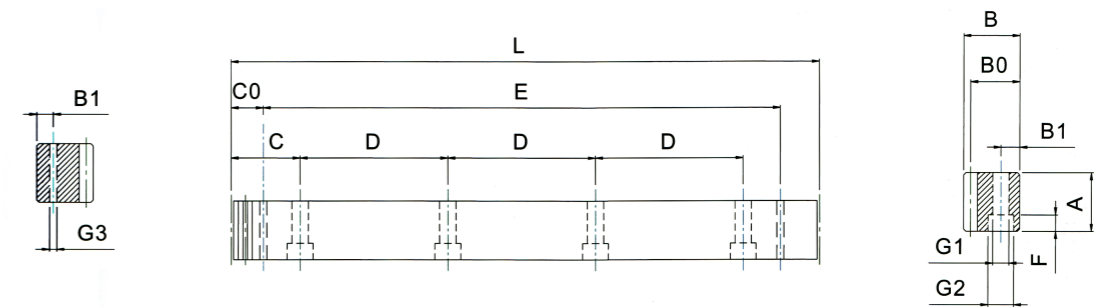


产品型号	L	齿数	A	B	B0	C	D	孔数	B1	G1	G2	F	C0	E	G3	总齿距误差
CSHG015-05P	499.51	106	17	17	15.5	62.44	124.88	4	8	6	9.5	7	29	441.5	5.7	0.036
CSHG015-10P	999.03	212	17	17	15.5	62.44	124.88	8	8	6	9.5	7	29	941	5.7	0.036
CSHG020-05P	502.64	80	24	24	22	62.83	125.66	4	8	7	11	7	31.3	440.1	5.7	0.036
CSHG020-10P	1005.28	160	24	24	22	62.83	125.66	8	8	7	11	7	31.3	942.7	5.7	0.036
CSHG030-05P	508.95	54	29	29	26	63.62	127.23	4	9	10	15	9	34.4	440.1	7.7	0.036
CSHG030-10P	1017.9	108	29	29	26	63.62	127.23	8	9	10	15	9	34.4	949.1	7.7	0.036
CSHG040-05P	502.64	40	39	39	35	62.83	125.66	4	12	10	15	9	37.5	427.7	7.7	0.036
CSHG040-10P	1005.28	80	39	39	35	62.83	125.66	8	12	10	15	9	37.5	930.3	7.7	0.036
CSHG050-05P	502.65	32	49	39	34	62.83	125.66	4	12	14	20	13	30.1	442.4	11.7	0.036
CSHG050-10P	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945	11.7	0.036
CSHG060-05P	508.95	27	59	49	43	63.62	127.23	4	16	18	26	17	31.4	446.1	15.7	0.036
CSHG060-10P	1017.9	54	59	49	43	63.62	127.23	8	16	18	26	17	31.4	955	15.7	0.036
CSHG080-05P	502.64	20	79	79	71	62.83	125.66	4	25	22	33	21	26.6	449.5	19.7	0.036
CSHG080-10P	1005.28	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952	19.7	0.036

Straight Teeth System 直齿系统

CSQF Series

- 精度等级 Precision grade: JIS 3 级, DIN7e25
- 齿面硬度 Tooth hardness: 20-25HRC
- 齿型 Tooth type: 直齿 /Straight teeth
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 材质 Material: S45C
- 热处理 Heat treatment: 调质 /Thermal refining

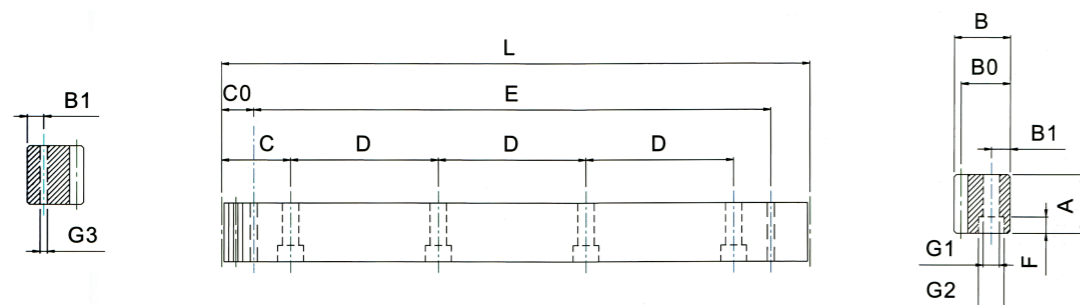


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CSQF015-05	499.51	106	17	17	15.5	62.44	124.88	4	8	6	9.5	7	29	441.5	5.7	0.08
CSQF015-10	999.03	212	17	17	15.5	62.44	124.88	8	8	6	9.5	7	29	941	5.7	0.08
CSQF020-05	502.64	80	24	24	22	62.83	125.66	4	8	7	11	7	31.3	440.1	5.7	0.08
CSQF020-10	1005.28	160	24	24	22	62.83	125.66	8	8	7	11	7	31.3	942.7	5.7	0.08
CSQF030-05	508.95	54	29	29	26	63.62	127.23	4	9	10	15	9	34.4	440.1	7.7	0.08
CSQF030-10	1017.9	108	29	29	26	63.62	127.23	8	9	10	15	9	34.4	949.1	7.7	0.08
CSQF040-05	502.64	40	39	39	35	62.83	125.66	4	12	10	15	9	37.5	427.7	7.7	0.08
CSQF040-10	1005.28	80	39	39	35	62.83	125.66	8	12	10	15	9	37.5	930.3	7.7	0.08
CSQF050-05	502.65	32	49	39	34	62.83	125.66	4	12	14	20	13	30.1	442.4	11.7	0.08
CSQF050-10	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945	11.7	0.08
CSQF060-05	508.95	27	59	49	43	63.62	127.23	4	16	18	26	17	31.4	446.1	15.7	0.08
CSQF060-10	1017.9	54	59	49	43	63.62	127.23	8	16	18	26	17	31.4	955	15.7	0.08
CSQF080-05	502.64	20	79	79	71	62.83	125.66	4	25	22	33	21	26.6	449.5	19.7	0.08
CSQF080-10	1005.28	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952	19.7	0.08

Straight Teeth System 直齿系统

CSHF Series

- 精度等级 Precision grade: JIS 6 级 . DIN10e27
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 齿面硬度 Tooth hardness: 48-52HRC
- 材质 Material: S45C
- 齿型 Tooth type: 直齿 /Straight teeth
- 热处理 Heat treatment: 高频 /High frequency

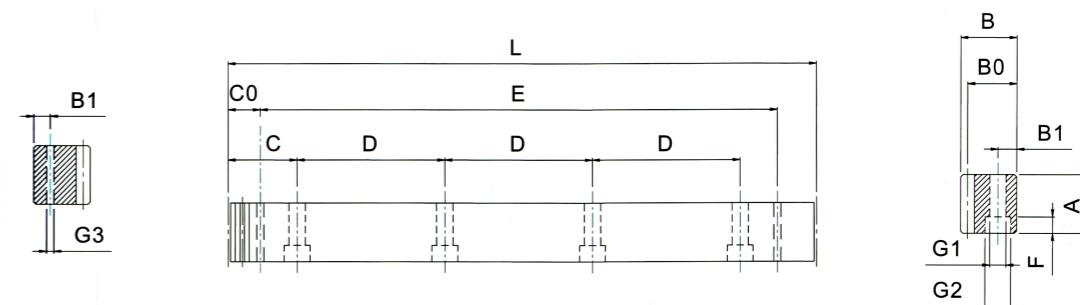


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CSHF015-05B	499.51	106	17	17	15.5	62.44	124.88	4	8	6	9.5	7	29	441.5	5.7	0.1
CSHF015-10B	999.03	212	17	17	15.5	62.44	124.88	8	8	6	9.5	7	29	941	5.7	0.1
CSHF020-05B	502.64	80	24	24	22	62.83	125.66	4	8	7	11	7	31.3	440.1	5.7	0.1
CSHF020-10B	1005.28	160	24	24	22	62.83	125.66	8	8	7	11	7	31.3	942.7	5.7	0.1
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CSHF040-05B	502.64	40	39	39	35	62.83	125.66	4	12	10	15	9	37.5	427.7	7.7	0.1
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CSHF060-10B	1017.9	54	59	49	43	63.62	127.23	8	16	18	26	17	31.4	955	15.7	0.1
CSHF080-05B	502.64	20	79	79	71	62.83	125.66	4	25	22	33	21	26.6	449.5	19.7	0.1
CSHF080-10B	1005.28	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952	19.7	0.1

Straight Teeth System 直齿系统

MSHG Series

- 精度等级 Precision grade: JIS 2 级 .DIN6h25
- 齿面处理 Tooth processing: 研磨/Grinding
- 齿面硬度 Tooth hardness: 52-55HRC
- 材质 Material: SCM420
- 齿型 Tooth type: 直齿 /Straight teeth
- 热处理 Heat treatment: 高频/High frequency

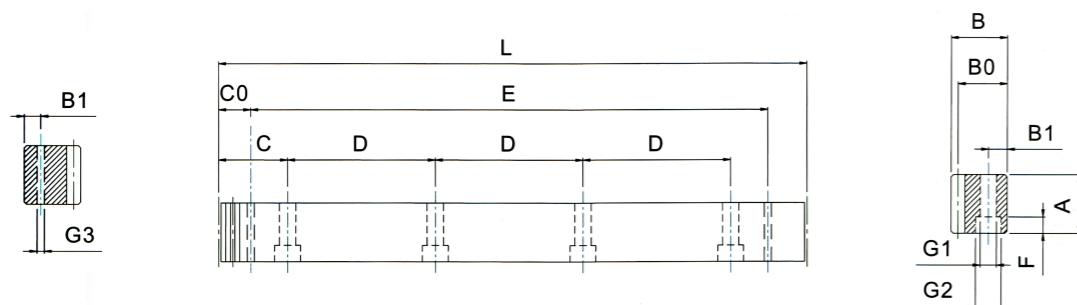


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MSHG030-05P	508.95	54	29	29	26	63.62	127.23	4	9	10	15	9	34.4	440.1	7.7	0.036
MSHG030-01P	1017.9	108	29	29	26	63.62	127.23	8	9	10	15	9	34.4	949.1	7.7	0.036
MSHG040-05P	502.64	40	39	39	35	62.83	125.66	4	12	10	15	9	37.5	427.7	7.7	0.036
MSHG040-10P	1005.28	80	39	39	35	62.83	125.66	8	12	10	15	9	37.5	930.3	7.7	0.036
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MSHG080-10P	1005.28	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952	19.7	0.036

Straight Teeth System 直齿系统

MSQF Series

- 精度等级 Precision grade: JIS 3 级, DIN7e25
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 齿面硬度 Tooth hardness: 25-28HRC
- 材质 Material: SCM420
- 齿型 Tooth type: 直齿 /Straight teeth
- 热处理 Heat treatment: 调质 /Thermal refining

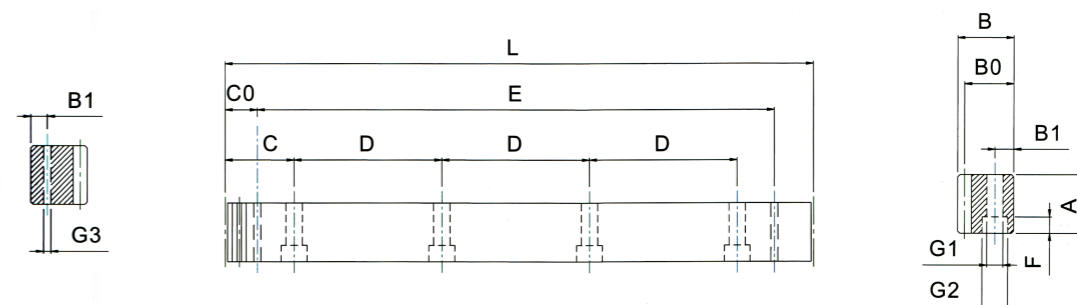


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MSQF015-10	999.03	212	17	17	15.5	62.44	124.88	8	8	6	9.5	7	29	941	5.7	0.08
MSQF020-05	502.64	80	24	24	22	62.83	125.66	4	8	7	11	7	31.3	440.1	5.7	0.08
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Straight Teeth System 直齿系统

MSHF Series

- 精度等级 Precision grade: JIS 6 级, DIN10e27
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 齿面硬度 Tooth hardness: 52-55HRC
- 材质 Material: SCM420
- 齿型 Tooth type: 直齿 /Straight teeth
- 热处理 Heat treatment: 高频 /High frequency

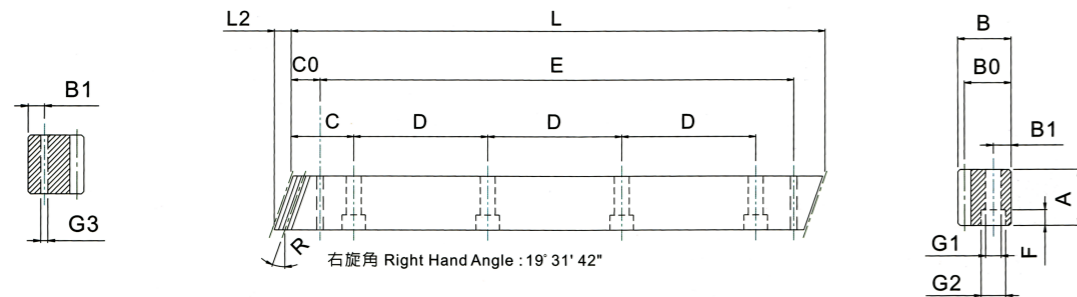


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MSHF020-10B	1005.28	160	24	24	22	62.83	125.66	8	8	7	11	7	31.3	942.7	5.7	0.1
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MSHF050-10B	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945	11.7	0.1
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MSHF080-10B	1005.28	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952	19.7	0.1

Helical Teeth System 斜齿系统

CHHG Series

- 精度等级 Precision grade: JIS 2 级, DIN6h25
- 齿面硬度 Tooth hardness: 48-52HRC
- 齿型 Tooth type: 右旋角 /Right hand corner
- 齿面处理 Tooth processing: 研磨 /Grinding
- 材质 Material: S45C
- 热处理 Heat treatment: 高频 /High frequency

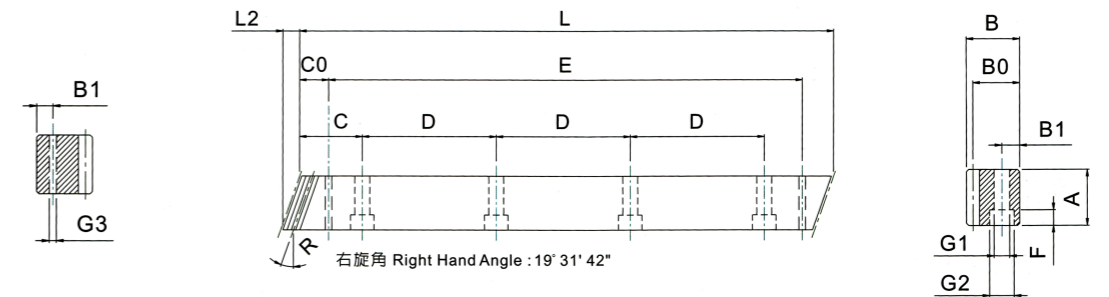


产品型号	L	L2	齿数	A	B	B0	C	D	孔数	B1	G1	G2	F	C0	E	G3	总齿距误差
CHHG015-05P	500	6	100	17	17	15.5	62.5	125	4	8	6	9.5	7	31.7	436.6	5.7	0.036
CHHG015-10P	1000	6	200	17	17	15.5	62.5	125	8	8	6	9.5	7	31.7	936.6	5.7	0.036
CHHG020-05P	500	8.5	75	24	24	22	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.036
CHHG020-10P	1000	8.5	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.036
CHHG030-05P	500	10.3	50	29	29	26	62.5	125	4	9	10	15	9	35	430	7.7	0.036
CHHG030-10P	1000	10.3	100	29	29	26	62.5	125	8	9	10	15	9	35	930	7.7	0.036
CHHG040-05P	506.67	13.8	38	39	39	35	62.5	125	4	12	10	15	9	33.3	433	7.7	0.036
CHHG040-10P	1000	13.8	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.036
CHHG050-05P	500	17.4	30	49	49	34	62.5	125	4	12	14	20	13	37.5	425	11.7	0.036
CHHG050-10P	1000	17.4	60	49	49	34	62.5	125	8	12	14	20	13	37.5	925	11.7	0.036
CHHG060-05P	500	20.9	25	59	59	43	62.5	125	4	16	18	26	17	37.5	425	15.7	0.036
CHHG060-10P	1000	20.9	50	59	59	43	62.5	125	8	16	18	26	17	37.5	925	15.7	0.036
CHHG080-05P	480	28	18	79	79	71	60	120	4	25	22	33	21	120	240	17.7	0.036
CHHG080-10P	960	28	36	79	79	71	60	120	8	25	22	33	21	120	720	17.7	0.036

Helical Teeth System 斜齿系统

CHQF Series

- 精度等级 Precision grade: JIS 3 级, DIN7e25
- 齿面硬度 Tooth hardness: 20-25HRC
- 齿型 Tooth type: 右旋角 /Right hand corner
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 材质 Material: S45C
- 热处理 Heat treatment: 调质 /Thermal refining

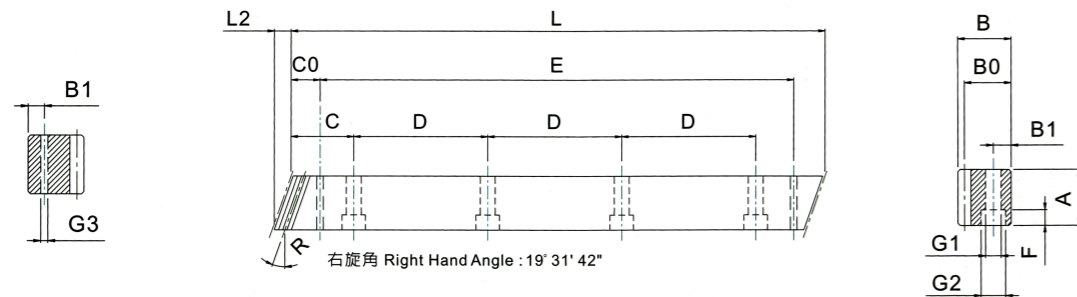


产品型号	L	L2	齿数	A	B	B0	C	D	孔数	B1	G1	G2	F	C0	E	G3	总齿距误差
CHQF015-05	500	6	100	17	17	15.5	62.5	125	4	8	6	9.5	7	31.7	436.6	5.7	0.08
CHQF015-10	1000	6	200	17	17	15.5	62.5	125	8	8	6	9.5	7	31.7	936.6	5.7	0.08
CHQF020-05	500	8.5	75	24	24	22	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.08
CHQF020-10	1000	8.5	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.08
CHQF030-05	500	10.3	50	29	29	26	62.5	125	4	9	10	15	9	35	430	7.7	0.08
CHQF030-10	1000	10.3	100	29	29	26	62.5	125	8	9	10	15	9	35	930	7.7	0.08
CHQF040-05	506.67	13.8	38	39	39	35	62.5	125	4	12	10	15	9	33.3	433	7.7	0.08
CHQF040-10	1000	13.8	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.08
CHQF050-05	500	17.4	30	49	49	34	62.5	125	4	12	14	20	13	37.5	425	11.7	0.08
CHQF050-10	1000	17.4	60	49	49	34	62.5	125	8	12	14	20	13	37.5	925	11.7	0.08
CHQF060-05	500	20.9	25	59	59	43	62.5	125	4	16	18	26	17	37.5	425	15.7	0.08
CHQF060-10	1000	20.9	50	59	59	43	62.5	125	8	16	18	26	17	37.5	925	15.7	0.08
CHQF080-05	480	28	18	79	79	71	60	120	4	25	22	33	21	120	240	17.7	0.08
CHQF080-10	960	28	36	79	79	71	60	120	8	25	22	33	21	120	720	17.7	0.08

Helical Teeth System 斜齿系统

CHHF Series

- 精度等级 Precision grade: JIS 6 级, DIN10e27
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 齿面硬度 Tooth hardness: 48-52HRC
- 材质 Material: S45C
- 齿型 Tooth type: 右旋角 /Right hand corner
- 热处理 Heat treatment: 高频 /High frequency

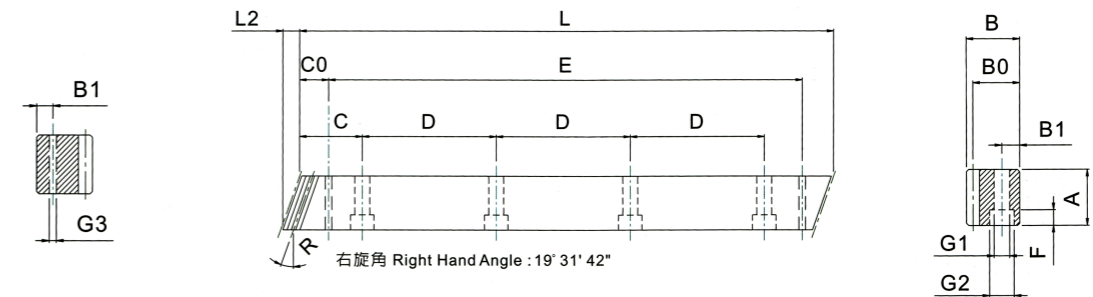


产品型号	L	L2	齿数	A	B	B0	C	D	孔数	B1	G1	G2	F	C0	E	G3	总齿距误差
CHHF015-05B	500	6	100	17	17	15.5	62.5	125	4	8	6	9.5	7	31.7	436.6	5.7	0.1
CHHF015-10B	1000	6	200	17	17	15.5	62.5	125	8	8	6	9.5	7	31.7	936.6	5.7	0.1
CHHF020-05B	500	8.5	75	24	24	22	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.1
CHHF020-10B	1000	8.5	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.1
CHHF030-05B	500	10.3	50	29	29	26	62.5	125	4	9	10	15	9	35	430	7.7	0.1
CHHF030-10B	1000	10.3	100	29	29	26	62.5	125	8	9	10	15	9	35	930	7.7	0.1
CHHF040-05B	506.67	13.8	38	39	39	35	62.5	125	4	12	10	15	9	33.3	433	7.7	0.1
CHHF040-10B	1000	13.8	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.1
CHHF050-05B	500	17.4	30	49	39	34	62.5	125	4	12	14	20	13	37.5	425	11.7	0.1
CHHF050-10B	1000	17.4	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925	11.7	0.1
CHHF060-05B	500	20.9	25	59	49	43	62.5	125	4	16	18	26	17	37.5	425	15.7	0.1
CHHF060-10B	1000	20.9	50	59	49	43	62.5	125	8	16	18	26	17	37.5	925	15.7	0.1
CHHF080-05B	480	28	18	79	79	71	60	120	4	25	22	33	21	120	240	17.7	0.1
CHHF080-10B	960	28	36	79	79	71	60	120	8	25	22	33	21	120	720	17.7	0.1

Helical Teeth System 斜齿系统

MHHG Series

- 精度等级 Precision grade: JIS 2 级, DIN6e25
- 齿面处理 Tooth processing: 研磨 /Grinding
- 齿面硬度 Tooth hardness: 52-55HRC
- 材质 Material: SCM420
- 齿型 Tooth type: 右旋角 /Right hand corner
- 热处理 Heat treatment: 高频 /High frequency

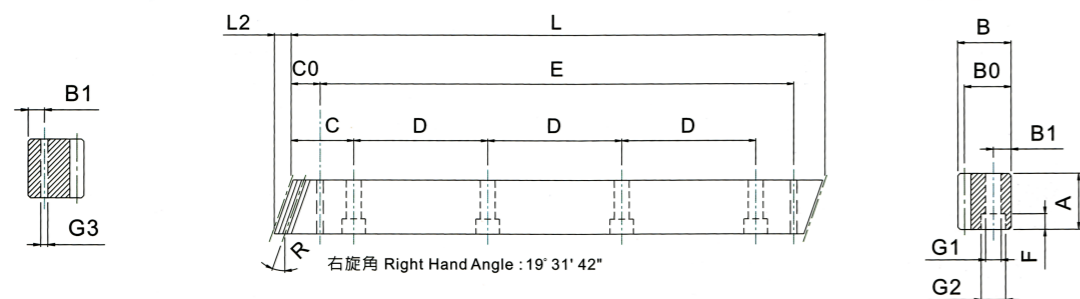


产品型号	L	L2	齿数	A	B	B0	C	D	孔数	B1	G1	G2	F	C0	E	G3	总齿距误差
MHHG015-05P	500	6	100	17	17	15.5	62.5	125	4	8	6	9.5	7	31.7	436.6	5.7	0.036
MHHG015-10P	1000	6	200	17	17	15.5	62.5	125	8	8	6	9.5	7	31.7	936.6	5.7	0.036
MHHG020-05P	500	8.5	75	24	24	22	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.036
MHHG020-10P	1000	8.5	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.036
MHHG030-05P	500	10.3	50	29	29	26	62.5	125	4	9	10	15	9	35	430	7.7	0.036
MHHG030-10P	1000	10.3	100	29	29	26	62.5	125	8	9	10	15	9	35	930	7.7	0.036
MHHG040-05P	506.67	13.8	38	39	39	35	62.5	125	4	12	10	15	9	33.3	433	7.7	0.036
MHHG040-10P	1000	13.8	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.036
MHHG050-05P	500	17.4	30	49	39	34	62.5	125	4	12	14	20	13	37.5	425	11.7	0.036
MHHG050-10P	1000	17.4	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925	11.7	0.036
MHHG060-05P	500	20.9	25	59	49	43	62.5	125	4	16	18	26	17	37.5	425	15.7	0.036
MHHG060-10P	1000	20.9	50	59	49	43	62.5	125	8	16	18	26	17	37.5	925	15.7	0.036
MHHG080-05P	480	28	18	79	79	71	60	120	4	25	22	33	21	120	240	17.7	0.036
MHHG080-10P	960	28	36	79	79	71	60	120	8	25	22	33	21	120	720	17.7	0.036

Helical Teeth System 斜齿系统

MHQF Series

- 精度等级 Precision grade: JIS 3 级 . DIN7e27
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 齿面硬度 Tooth hardness: 25-28HRC
- 材质 Material: SCM420
- 齿型 Tooth type: 右旋角 /Right hand corner
- 热处理 Heat treatment: 调质 /Thermal refining



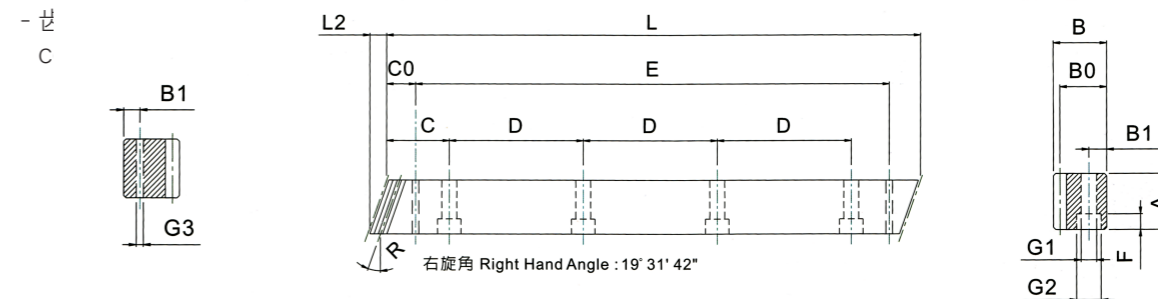
产品型号	L	L2	齿数	A	B	B0	C	D	孔数	B1	G1	G2	F	C0	E	G3	总齿距误差
MHQF015-05A	500	6	100	17	17	15.5	62.5	125	4	8	6	9.5	7	31.7	436.6	5.7	0.08
MHQF015-10A	1000	6	200	17	17	15.5	62.5	125	8	8	6	9.5	7	31.7	936.6	5.7	0.08
MHQF020-05A	500	8.5	75	24	24	22	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.08
MHQF020-10A	1000	8.5	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.08
MHQF030-05A	500	10.3	50	29	29	26	62.5	125	4	9	10	15	9	35	430	7.7	0.08
MHQF030-10A	1000	10.3	100	29	29	26	62.5	125	8	9	10	15	9	35	930	7.7	0.08
MHQF040-05A	506.67	13.8	38	39	39	35	62.5	125	4	12	10	15	9	33.3	433	7.7	0.08
MHQF040-10A	1000	13.8	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.08
MHQF050-05A	500	17.4	30	49	49	34	62.5	125	4	12	14	20	13	37.5	425	11.7	0.08
MHQF050-10A	1000	17.4	60	49	49	34	62.5	125	8	12	14	20	13	37.5	925	11.7	0.08
MHQF060-05A	500	20.9	25	59	59	43	62.5	125	4	16	18	26	17	37.5	425	15.7	0.08
MHQF060-10A	1000	20.9	50	59	59	43	62.5	125	8	16	18	26	17	37.5	925	15.7	0.08
MHQF080-05A	480	28	18	79	79	71	60	120	4	25	22	33	21	120	240	17.7	0.08
MHQF080-10A	960	28	36	79	79	71	60	120	8	25	22	33	21	120	720	17.7	0.08

Helical Teeth System 斜齿系统

MHQF Series

- 精度等级 Precision grade: JIS 4 级 . DIN8e27
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 齿面硬度 Tooth hardness: 25-28HRC
- 材质 Material: SCM420
- 热处理 Heat treatment: 调质 /Thermal refining

- s: 25-28HRC

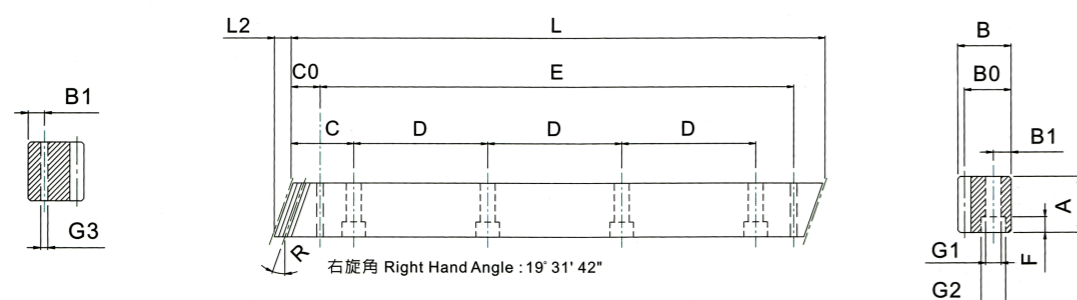


产品型号	L	L2	齿数	A	B	B0	C	D	孔数	B1	G1	G2	F	C0	E	G3	总齿距误差
MHQF015-05B	500	6	100	17	17	15.5	62.5	125	4	8	6	9.5	7	31.7	436.6	5.7	0.08
MHQF015-10B	1000	6	200	17	17	15.5	62.5	125	8	8	6	9.5	7	31.7	936.6	5.7	0.08
MHQF020-05B	500	8.5	75	24	24	22	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.08
MHQF020-10B	1000	8.5	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.08
MHQF030-05B	500	10.3	50	29	29	26	62.5	125	4	9	10	15	9	35	430	7.7	0.08
MHQF030-10B	1000	10.3	100	29	29	26	62.5	125	8	9	10	15	9	35	930	7.7	0.08
MHQF040-05B	506.67	13.8	38	39	39	35	62.5	125	4	12	10	15	9	33.3	433	7.7	0.08
MHQF040-10B	1000	13.8	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.08
MHQF050-05B	500	17.4	30	49	49	34	62.5	125	4	12	14	20	13	37.5	425	11.7	0.08
MHQF050-10B	1000	17.4	60	49	49	34	62.5	125	8	12	14	20	13	37.5	925	11.7	0.08
MHQF060-05B	500	20.9	25	59	59	43	62.5	125	4	16	18	26	17	37.5	425	15.7	0.08
MHQF060-10B	1000	20.9	50	59	59	43	62.5	125	8	16	18	26	17	37.5	925	15.7	0.08
MHQF080-05B	480	28	18	79	79	71	60	120	4	25	22	33	21	120	240	17.7	0.08
MHQF080-10B	960	28	36	79	79	71	60	120	8	25	22	33	21	120	720	17.7	0.08

Helical Teeth System 斜齿系统

MHHF Series

- 精度等级 Precision grade: JIS 5 级, DIN9e27
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 齿面硬度 Tooth hardness: 52-55HRC
- 材质 Material: SCM420
- 齿型 Tooth type: 右旋角 /Right hand corner
- 热处理 Heat treatment: 高频 /High frequency

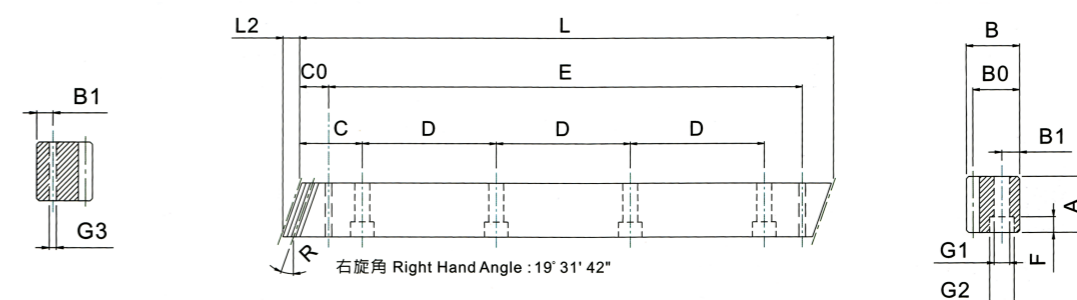


产品型号	L	L2	齿数	A	B	B0	C	D	孔数	B1	G1	G2	F	C0	E	G3	总齿距误差
MHHF015-05A	500	6	100	17	17	15.5	62.5	125	4	8	6	9.5	7	31.7	436.6	5.7	0.1
MHHF015-10A	1000	6	200	17	17	15.5	62.5	125	8	8	6	9.5	7	31.7	936.6	5.7	0.1
MHHF020-05A	500	8.5	75	24	24	22	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.1
MHHF020-10A	1000	8.5	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.1
MHHF030-05A	500	10.3	50	29	29	26	62.5	125	4	9	10	15	9	35	430	7.7	0.1
MHHF030-10A	1000	10.3	100	29	29	26	62.5	125	8	9	10	15	9	35	930	7.7	0.1
MHHF040-05A	506.67	13.8	38	39	39	35	62.5	125	4	12	10	15	9	33.3	433	7.7	0.1
MHHF040-10A	1000	13.8	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.1
MHHF050-05A	500	17.4	30	49	39	34	62.5	125	4	12	14	20	13	37.5	425	11.7	0.1
MHHF050-10A	1000	17.4	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925	11.7	0.1
MHHF060-05A	500	20.9	25	59	49	43	62.5	125	4	16	18	26	17	37.5	425	15.7	0.1
MHHF060-10A	1000	20.9	50	59	49	43	62.5	125	8	16	18	26	17	37.5	925	15.7	0.1
MHHF080-05A	480	28	18	79	79	71	60	120	4	25	22	33	21	120	240	17.7	0.1
MHHF080-10A	960	28	36	79	79	71	60	120	8	25	22	33	21	120	720	17.7	0.1

Helical Teeth System 斜齿系统

MHHF Series

- 精度等级 Precision grade: JIS 6 级, DIN10e27
- 齿面处理 Tooth processing: 精铣 /Finish-milling
- 齿面硬度 Tooth hardness: 52-55HRC- 齿型
- 材质 Material: SCM420
- 齿型 Tooth type: 右旋角 /Right hand corner
- 热处理 Heat treatment: 高频 /High frequency



产品型号	L	L2	齿数	A	B	B0	C	D	孔数	B1	G1	G2	F	C0	E	G3	总齿距误差
MHHF015-05B	500	6	100	17	17	15.5	62.5	125	4	8	6	9.5	7	31.7	436.6	5.7	0.1
MHHF015-10B	1000	6	200	17	17	15.5	62.5	125	8	8	6	9.5	7	31.7	936.6	5.7	0.1
MHHF020-05B	500	8.5	75	24	24	22	62.5	125	4	8	7	11	7	31.7	436.6	5.7	0.1
MHHF020-10B	1000	8.5	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	0.1
MHHF030-05B	500	10.3	50	29	29	26	62.5	125	4	9	10	15	9	35	430	7.7	0.1
MHHF030-10B	1000	10.3	100	29	29	26	62.5	125	8	9	10	15	9	35	930	7.7	0.1
MHHF040-05B	506.67	13.8	38	39	39	35	62.5	125	4	12	10	15	9	33.3	433	7.7	0.1
MHHF040-10B	1000	13.8	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	0.1
MHHF050-05B	500	17.4	30	49	39	34	62.5	125	4	12	14	20	13	37.5	425	11.7	0.1
MHHF050-10B	1000	17.4	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925	11.7	0.1
MHHF060-05B	500	20.9	25	59	49	43	62.5	125	4	16	18	26	17	37.5	425	15.7	0.1
MHHF060-10B	1000	20.9	50	59	49	43	62.5	125	8	16	18	26	17	37.5	925	15.7	0.1
MHHF080-05B	480	28	18	79	79	71	60	120	4	25	22	33	21	120	240	17.7	0.1
MHHF080-10B	960	28	36	79	79	71	60	120	8	25	22	33	21	120	720	17.7	0.1

Helical Teeth System 斜齿系统

DLKH Series

- 精度等级 Precision grade: JIS 2 级, DIN6h25
- 齿面硬度 Tooth hardness: 55-60HRC
- 齿型 Tooth type: 左旋角 /Left hand corner
- 齿面处理 Tooth processing: 研磨 /Grinding
- 材质 Material: SCM420
- 热处理 Heat treatment: 高频 /High frequency

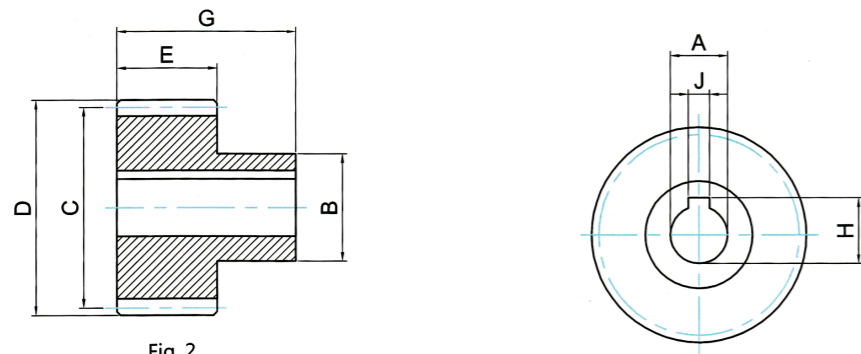


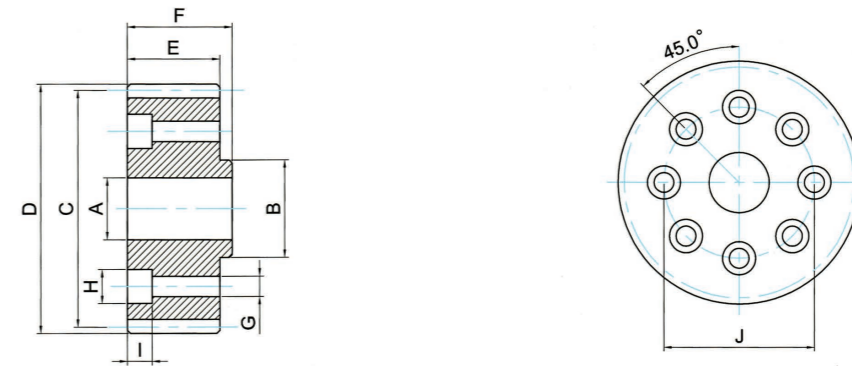
Fig. 2

产品型号	齿数	A	B	C	D	E	G	J	H
DLKH02-21-22M	21	22	36	44.56	48.6	28	56	6	24.8
DLKH02-30-22M	30	22	36	63.66	67.7	28	56	6	24.8
DLKH02-30-30M	30	30	50	63.66	67.7	28	60	8	33.3
DLKH02-30-32M	30	32	55	63.66	67.7	28	65	10	35.3
DLKH02-32-32M	32	32	50	67.91	71.9	28	51	10	35.3
DLKH02-39-32M	39	32	55	82.76	86.8	28	65	10	35.3
DLKH03-20-22M	20	22	36	63.66	69.7	28	56	6	24.8
DLKH03-20-25M	20	25	44	63.66	69.7	28	60	8	28.3
DLKH03-20-30M	20	30	50	63.66	69.7	28	60	8	33.3
DLKH03-20-32M	20	32	55	63.66	69.7	28	65	10	24.8
DLKH03-25-22M	25	22	36	79.58	85.6	28	56	6	28.3
DLKH03-25-25M	25	25	44	79.58	85.6	28	60	8	33.3
DLKH03-25-30M	25	30	50	79.58	85.6	28	60	8	35.3
DLKH03-25-32M	25	32	55	79.58	85.6	28	65	10	43.3
DLKH03-25-40M	25	40	70	79.58	85.6	28	70	12	43.3
DLKH03-30-32M	30	32	55	95.5	101.5	28	60	10	35.3

Helical Teeth System 斜齿系统

DLKH Series

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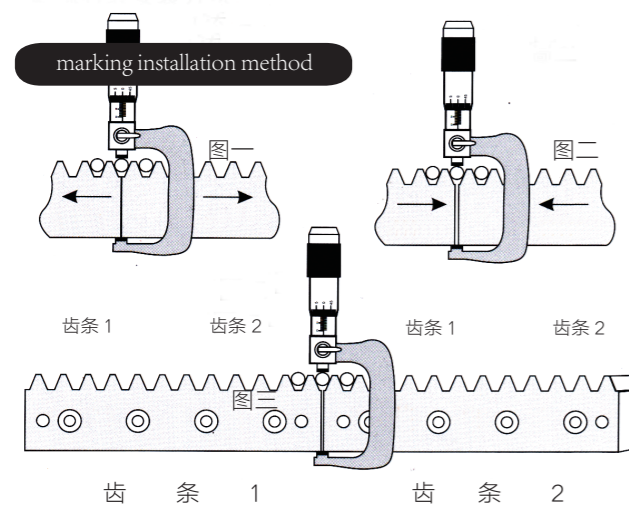
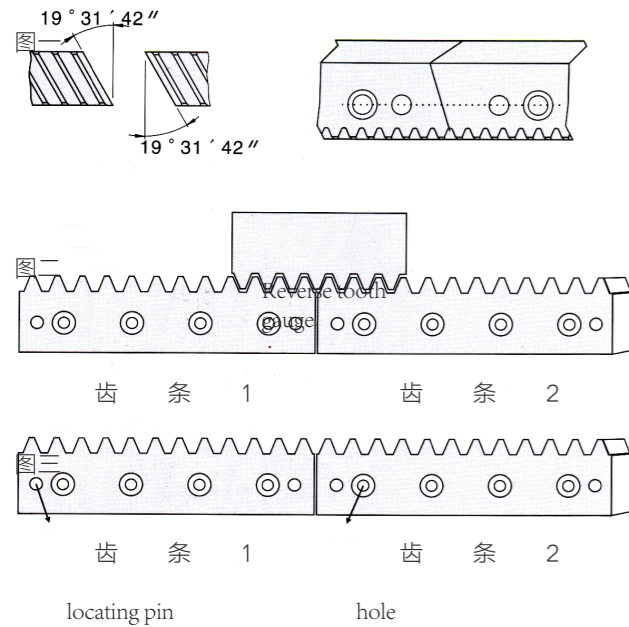
产品型号	齿数	A	B	C	D	E	F	G	H	I	J	K	X
DLKH02-26-15N	26	15	20	55.2	60.5	26	29	5.5	10	12	31.5	173.33	0.4065
DLKH02-27-15N	27	15	20	57.29	61.29	30	33.5	5.5	10	11	31.5	180	0
DLKH02-29-15N	29	15	20	61.54	66.5	26	29	5.5	10	12	31.5	193.33	0.415
DLKH02-35-15N	35	15	20	74.3	79.5	26	29	5.5	10	12	31.5	233.33	0.3819
DLKH02-29-20N	29	20	15	61.54	67	26	30	6.6	11	14	40	193.33	0.415
DLKH02-33-20N	33	20	31.5	70	75	26	30	6.6	11	14	50	220	0.3928
DLKH02-36-20N	36	20	31.5	76.39	80.39	30	34	6.6	11	8	50	240	0
DLKH02-37-20N	37	20	31.5	78.5	83.5	26	30	6.6	11	14	50	246.76	0.4209
DLKH03-31-20N	31	20	31.5	98.7	106.5	31	35.5	6.6	11	9	50	310	0.354

Installation and connection of rack 齿条的安装和连接

Racks installation instructions

During rack installation, pre-drill the mounting holes in the tooth profile Angle, and drill holes during assembly. You can also add more holes. The mounting screws need to be tightened by torque wrench and table top, and the inner hexagon screws are fixed with 12.9 torque. For 0.5M long rack, you must use dowel pins. If it is used for pairing rack with high load, it is recommended to check the connection response under load.

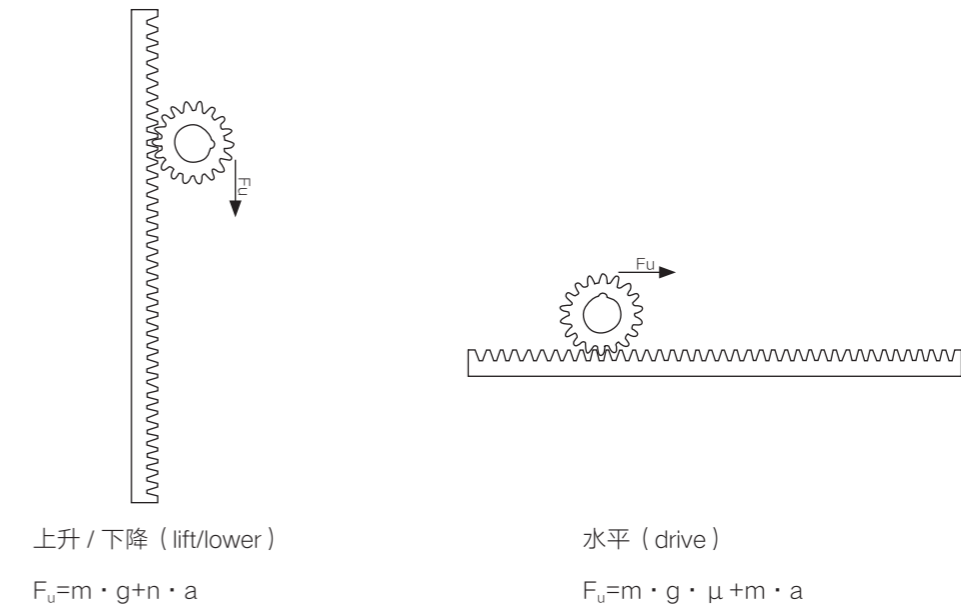
Quick installation method



1. prefastening the rack position with screws
2. Auxiliary mounting rack with reverse buckle tooth gauge
3. After adjustment, check the parallelism of the rack and the parallelism between the rack, and also check the straightness of the rack.
4. After the inspection is complete, tighten the rack according to the preloading force, tighten the screws with a strength of 12.9 torque, and then install the positioning pins

1. Pretighten the rack position with screws
2. Put the round rod into any tooth of the rack, and use the bow micrometer to measure the distance from the bottom of the rack to the highest point of the round rod as the installation reference value
3. The round rod is placed into the connecting teeth of the rack and the connecting rack, and the distance between the bottom of the rack and the highest point of the round rod is measured according to the reference value. The reference value is reached by adjusting before and after.
4. After adjustment, check the parallelism of the rack and the parallelism between the rack, and also check the straightness of the rack.
5. After inspection, tighten the rack according to the preload, tighten the screws with 12.9 torque, and then install the dotting pins.

Selection rack and pinion drive 齿条传动形式



名称 (Description)	公式 (Formula)	单位 (Dimension)
加速度 (Acciliration)	$a = \frac{v}{t} = \frac{2 \cdot s}{t^2}$	m/s ²
速度 (Speed)	$v = \frac{s}{t} = \sqrt{2 \cdot a \cdot s}$	m/s
距离 (Distance)	s	m
时间 (Time)	t	s
转速 (Rpm)	$n = \frac{v \cdot 60}{\pi \cdot d_0}$	1/min
分度圆直径 (Pitch Diameter)	d ₀	mm
扭矩 (Torque)	$M = \frac{F_u \cdot d_0}{2000}$	Nm
功率 (Power)	$P = \frac{M \cdot n}{9550} = \frac{F_u \cdot n \cdot d_0}{19100}$	Kw

设计参数	The dimensioning happened with		
使用参数	1.0	Application factor:	1.0
齿间链接安全系数	1.0	Safety for stress at single tooth contact	1.0
防齿裂安全系数	1.4	Safety for Tooth foot stress:	1.4
使用寿命	20.000h	Service life in hours:	20.000h